

WHAT IS CLAIMED IS:

1. A communication apparatus for converting a frequency of received signals from a plurality of hand sets and retransmitting the signals; having

5 a whole spectrum inverter for inverting a frequency spectrum including the received signals from the plurality of hand sets; said communication apparatus, wherein

10 the plurality of received signals included in the frequency spectrum inverted in the whole spectrum inverter are retransmitted.

2. The communication apparatus according to Claim 1, having

15 filters for attenuating signal components other than the plurality of received signal components included in the frequency spectrum inverted by the whole spectrum inverter; said communication apparatus, wherein

20 the plurality of received signals included in the frequency spectrum outputted from the filters are retransmitted.

3. The communication apparatus according to Claim 1, having

25 a partial spectrum inverter for inverting a frequency spectrum for each spectrum of the plurality of received signals included in the frequency spectrum.

4. The communication apparatus according to Claim 3,
wherein

the partial spectrum inverter is arithmetic
signal processing means.

5 5. The communication apparatus according to Claim 1,
wherein

the whole spectrum inverter is frequency
converting means.

6. The communication apparatus according to Claim 3,
10 wherein

the whole spectrum inverter and the partial
spectrum inverter are arithmetic signal processing means.

7. The communication apparatus according to Claim 6,
wherein

15 the partial spectrum inverter is provided before
the whole spectrum inverter.

8. A frequency spectrum inversion method comprising
steps of:

20 sampling signals by a predetermined sampling
frequency;

complementing sample data obtained by the
sampling to convert a sampling rate; and

extracting by a bandpass filter only a spectrum
of the signal, generated by the sampling, whose frequency

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spectrum is inverted out of frequency spectrums after the conversion of the sampling rate.

9. A frequency spectrum inversion method comprising steps of:

5 sampling signals by a predetermined sampling frequency;

decimating sample data obtained by the sampling to convert a sampling rate; and

10 extracting by a bandpass filter only a spectrum of the signal, generated by the conversion of the sampling rate, whose frequency spectrum is inverted.

10. A frequency spectrum inversion method comprising steps of:

15 sampling signals by a predetermined sampling frequency;

setting part of the sample data obtained by the sampling to zero; and

20 extracting by a bandpass filter or lowpass filter only a spectrum of the signal, generated by setting part of the sample data obtained by the sampling to zero, whose frequency spectrum is inverted.

11. A program storage medium, storing
a program for executing the frequency spectrum inversion method according to Claim 8.